

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A low coefficient of thermal expansion cermet material consisting of:
 - a first phase of tungsten carbide (WC) grains; and
 - a second phase of iron-based binder alloy bonding the first phase of grains together and a Co, Ni, C and Mn;wherein the binder alloy comprises in the range of from about 10 to 30 percent by weight cobalt based on the total weight of the binder alloy, wherein the binder alloy comprises in the range of from 10 to 30 percent by weight of the total weight of the cermet material, and wherein the binder alloy has a coefficient of thermal expansion of less than about 10 ppm/°C within a temperature range of from 100 to 700°C.
- 2-6. (Canceled)
7. (Previously Presented) The cermet material as recited in claim 1 wherein the iron-based binder alloy comprises in the range of from about 10 to 40 percent by weight Ni based on the total weight of the binder alloy.
- 8-10. (Canceled)
11. (Original) The cermet material as recited in claim 1 wherein the difference between the coefficient of thermal expansion for the binder alloy and the first phase of grains is less than about 5 ppm/°C.
12. (Original) The cermet material as recited in claim 11 wherein the difference between the coefficient of thermal expansion for the binder alloy and the first phase of grains is less than about 2 ppm/°C.

13. (Original) A rock bit comprising a body having a number of legs that extend therefrom, cutting cones rotatably disposed on an end of each leg, a plurality of cutting inserts disposed in the cutting cones, wherein the cutting inserts are formed from the cermet material recited in claim 1.
14. (Previously Presented) A low coefficient of thermal expansion cermet composition consisting of:
 - a first phase of tungsten carbide (WC) grains; and
 - a second phase of iron-based binder alloy bonding the first phase of grains together and comprising Co, Ni, Fe, C and Mn;
 - wherein the cermet composition has a coefficient of thermal expansion less than that of conventional WC-Co at the same temperature and having the same metal content at a temperature range of from 100 to 700°C; and
 - wherein the binder alloy comprises in the range of from about 10 to 30 percent by weight of the total weight of the cermet material, and comprises in the range of from about 10 to 30 percent by weight cobalt based on the total weight of the binder alloy.
- 15-18. (Canceled)
19. (Previously Presented) The cermet composition as recited in claim 14 wherein the iron-based binder alloy comprises from about 10 to 40 percent by weight nickel based on the total weight of the binder alloy.
20. (Original) The cermet composition as recited in claim 19 wherein the binder alloy has a coefficient of thermal expansion of less than about 10 ppm/°C within a temperature range of from 100 to 700°C.
21. (Original) The cermet composition as recited in claim 19 wherein the difference between the coefficient of thermal expansion for the binder alloy and the first phase of grains is less than about 2 ppm/°C.
- 22-32. (Canceled)

33. (Previously Presented) A rotary cone rock bit comprising:
a body having a number of legs that extend therefrom;
cutting cones rotatably disposed on an end of each leg;
a plurality of cutting inserts disposed in the cutting cones, wherein the cutting inserts are formed from a cermet material consisting of a first phase of grains and a second ductile phase bonding the grains, wherein the first phase of grains is tungsten carbide (WC), wherein the second ductile phase is binder alloy of Co, Ni, Fe, C and Mn;
wherein the binder alloy comprises in the range of from about 10 to 30 percent by weight cobalt based on the total weight of the binder alloy, wherein the binder alloy comprises in the range of from about 10 to 30 percent by weight of the total cermet material, and wherein the binder alloy has a coefficient of thermal expansion less than about 6 ppm/°C within a temperature range of from 100 to 700°C.
34. (Original) The rock bit as recited in claim 33 wherein the difference between the coefficient of thermal expansion for the binder alloy and the first phase of grains is less than about 2 ppm/°C.
- 35-36. (Canceled)
37. (Previously Presented) The rock bit as recited in claim 33 wherein the iron-based binder alloy comprises in the range of from about 10 to 40 percent by weight Ni based on the total weight of the binder alloy.
- 38-40. (Canceled)
41. (Previously Presented) The rock bit as recited in claim 33 wherein the cermet material further comprises a continuous further ductile phase, wherein particles formed from the grains and binder alloy are disbursed therein, the further ductile phase being selected from the group consisting of Co, Ni, Fe, W, Mo, Ti, Ta, V, Nb, B, Cr, Mn and alloys thereof;

wherein the cermet comprising the further ductile phase has a coefficient of thermal expansion less than that of WC-Co at the same temperature and having the same metal content.

42. (Previously Presented) The rock bit as recited in claim 33 wherein the combined WC and binder alloy has a coefficient of thermal expansion that is less than that of conventional WC-Co at the same temperature and having the same metal content within a temperature range of from 100 to 700°C.

43-47. (Canceled)